AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE	OF	PAGES
	1		2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
0003	17 SEP 01		

6. ISSUED BY	CODE	7. ADMINISTERED BY *(If other than Item 6)*	CODE
US ARMY ENGINEER DISTRICT, FORT WORTH ATTN: CESWF-CT (RM 2A19) PO BOX 17300 FORT WORTH, TX 76102-0300			

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and ZIP Code)*	(X)	9A. AMENDMENT OF SOLICIATION NO.
	☒	DACW63-01-B-0002
		9B. DATED *(SEE ITEM 11)* 22 AUGUST 2001
	☐	10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED *(SEE ITEM 11)*
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☒ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☒ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a)By completing items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment your desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER *(Specify type of modification and authority)*

E. IMPORTANT: Contractor ☐ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (*Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

The Solicitation for BRAZOS RIVER STREAMBANK PROTECTION, SEWAGE TREATMENT PLANT, WACO, TEXAS, is amended as follows:

See Continuation Sheet.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*	
15B. CONTRACTOR/OFFEROR *(Signature of person authorized to sign)*	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA *(Signature of Contracting Officer)*	16C. DATE SIGNED

Item 14. Continued.

CHANGES TO BID OPENING DATE

1. Standard Form 1442, First Page, Item No. 13.A.- In the second line, change the bid opening date from "20 SEPTEMBER 2001" to "25 SEPTEMBER 2001". Bid Opening Time remains 2 p.m.

CHANGES TO THE SPECIFICATIONS

2. Replacement Sections - Replace the following section with the accompanying new section of the same number and title, bearing the notation "ACCOMPANYING AMENDMENT NO. 0003 TO SOLICITATION NO. DACW63-01-B-0002:"

02370 STONE PROTECTION

END OF AMENDMENT

SECTION 02370

STONE PROTECTION
[AM #0001]
[AM #0003]

PART 1 GENERAL

1.1 SCOPE

This section covers riprap and bedding.

1.2 ACCEPTABLE SOURCES OF RIPRAP

Sources of riprap acceptable to the Government are Granite Mountain quarry, at Marble Falls, Texas and Dolese Brothers quarry at Richard Spur, Oklahoma.

1.3 REFERENCES

The publications listed below form a part of the specifications to the extent referenced. The publications are referred to in the text by the basic designation only.

CORPS OF ENGINEERS (COE)

CRD-C 137	(1977) Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate
CRD-C 144	(1973) Method of Testing Stone for Resistance to Freezing and Thawing

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 88	(1976) Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C 127	(1980) Specific Gravity and Absorption of Coarse Aggregate
ASTM C 535	Resistance to Degradation of Large Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; all other submittals are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-04 Samples

Stone Protection Materials; G.

Samples of stone protection materials of each type.

SD-06 Test Reports

Testing; G.

Within 24 hours of conclusion of physical tests, 2 copies of test results including durability, weight, absorption, soundness (magnesium sulfate test and freezing and thawing test), and resistance to degradation.

SD-07 Certificates

Testing; .

Qualifications of the commercial testing laboratory or Contractor's testing facilities.

1.5 MEASUREMENT AND PAYMENT

Measurement and payment shall be in accordance with SECTION 01270.

PART 2 PRODUCTS

2.1 STONE PROTECTION MATERIALS, GENERAL

Stone for the protection work shall be durable stone as approved by the Contracting Officer. Gypsum, anhydrite, chert, shale, and soft or weathered rock will not be approved. The Contractor shall make all arrangements for procuring, loading, hauling, handling, and placing all stone protection materials from **[AM #1]** **approved** sources.

2.2 RIPRAP

Stone for riprap shall be durable and of a suitable quality to insure permanence in the structure and in the climate in which it is to be used. **[AM #3]** **The loss of weight of stone after Soundness Testing by Magnesium Sulfate Test shall not exceed 15 percent after testing with five cycles of magnesium sulfate. The tests shall be in accordance with the procedures designated in CRD-C 137 and ASTM C 88. The tests shall be performed on 1-1/2 to 2-1/2-inch size samples.** It shall be free from cracks, seams, and other defects that would tend to increase unduly its deterioration from natural causes. The inclusion of objectionable quantities of dirt, sand, clay, and rock fines will not be permitted. Either boulders or quarried rock may be used. The stone shall be reasonably well graded from the minimum size stone permitted to the maximum size stone permitted. Neither the breadth nor the thickness of any piece of stone shall be less than one-third of its length. During production, the stone will be sampled as often as deemed necessary by the Contracting Officer to determine compliance with the provisions of the specifications. The Contractor shall provide all necessary equipment and labor for the taking, processing and weighing of representative samples.

Gradations shall be as follows:

RIPRAP GRADATIONS FOR STREAMBANK PROTECTION[1]

Riprap Thickness (Inches)	Maximum Size (Pounds)	90 Percent Size[2] (Pounds)	Average Size[3] (Pounds)	8-Percent Size[4] (Pounds)
24	1120	650-875	200-350	35

[1] Gradation is for stone having a specific gravity of 2.65.

[2] Defined as that size such that 90 percent of the stone, by weight, is smaller and 10 percent larger.

[3] Defined as that size such that 50 percent of the total riprap stone, byweight, is larger and 50 percent is smaller.

[4] Not more than 8 percent of the riprap, by weight, shall consist of pieces weighing less than the weights shown for the applicable riprap thickness.

2.3 BEDDING

Bedding material shall consist of sand, gravel, or crushed stone, well-graded between the prescribed limits. The material shall be composed of tough, durable particles, shall be reasonably free from thin, flat and elongated pieces, and shall contain no organic matter or soft, friable particles in quantities more than 5 percent of the total sample.

Sieve Designation U. S. Standard Square Mesh (Inch)	Percent by Weight Passing
6	100
3	65-100
1-1/2	40-60
3/4	25-45
No. 4	0-15
No. 40	0-5

PART 3 EXECUTION

3.1 FOUNDATION PREPARATION

Foundation preparation shall be in accordance with SECTION 02300 and the following:

Areas on which bedding is to be placed shall be trimmed and dressed to conform to cross sections shown on the drawings within an allowable tolerance of plus or minus 2 inches from the theoretical slope lines and grades. Where such areas are below the allowable minus tolerance limit they shall be brought to grade by filling with earth similar to the

adjacent material and well-compacted or by filling with bedding material and no additional payment will be made for any material thus required. Immediately prior to placing the bedding, the prepared base will be inspected by the Contracting Officer and no material shall be placed thereon until that area has been approved.

3.2 BEDDING PLACEMENT

Bedding material shall be placed within the limits shown on the drawings or as staked in the field. Bedding material shall be spread uniformly on the prepared base, in a satisfactory manner, to the slope lines and grades indicated on the drawings or as directed. Placing of material by methods which will tend to segregate particle sizes within the bedding will not be permitted. Any damage to the surface of the bedding base during placing of the bedding shall be repaired before proceeding with the work. Unless otherwise specified, compaction of the bedding layers will not be required but they shall be finished to present a reasonably even surface free from mounds or windrows. A tolerance of plus or minus one inch from the thickness indicated on the drawings will be allowed in the finished surface of the bedding.

3.3 RIPRAP PLACEMENT

Riprap shall be placed within the limits shown on the drawings or otherwise required by the Contracting Officer. Stone for riprap shall be placed on the bedding in a manner to produce a reasonably well-graded mass of rock with a minimum of voids, and shall be constructed within the specified tolerance to the lines and grades shown on the drawings or staked in the field. Riprap shall be placed up the slope from the toe. A tolerance of plus 6 inches from the thickness shown on the drawings will be allowed in the finished surface of the riprap, i.e., isolated stones may extend as much as 6 inches above the grade line shown on the drawings. Where thickness of riprap exceeds the allowable tolerance, excess riprap shall be redistributed or removed from the work. Riprap removed from the work shall be reweighed for deduction from the quantity to be paid for. No minus tolerance will be permitted.

Beginning at the toe of the slope, riprap shall be placed to its full course thickness in one operation and in a manner to avoid displacing the bedding stone. The larger stones shall be well distributed and the entire mass of stones in their final position shall be roughly graded to conform to the gradation specified above. The finished riprap shall be free from objectionable pockets of small stones and clusters of larger stones. Placing riprap in layers will not be permitted.

Placing riprap by dumping into chutes or by similar methods likely to cause segregation of the various sizes will not be permitted. The desired distribution of the various sizes of stones throughout the mass shall be obtained by selective loading of the material at the quarry or other source; by controlled dumping of successive loads during final placing, or by other methods of placement which will produce the specified results. Rearranging of individual stones by mechanical equipment or by hand shall be performed as required to obtain a reasonably well-graded distribution of stone sizes as specified above.

Any unsuitable riprap placed in the work shall be removed from the work and reweighed for deduction from the quantity to be paid for. Finishing operations shall not lag initial placement operations more than 200 feet. Unless otherwise authorized by the Contracting Officer, riprap protection shall be placed in conjunction with the construction of the embankment and with only sufficient lag in construction of the riprap as may be necessary to prevent mixture of embankment and stone protection materials. The Contractor shall maintain the riprap protection until accepted and any material displaced by any cause shall be replaced at his expense to the lines and grades shown on the drawings.

3.4 UNDERWATER PLACEMENT

For underwater placement, riprap stone shall be placed with a skip bucket or other approved equipment capable of discharging the material underwater with minimum freefall to reduce segregation. Stone shall be placed systematically beginning at the base of structure slopes. Low spots in stone shall be located by probing, and all low spots shall be thickened, as a minimum, to thickness and grade.

3.5 PRODUCTION QUALITY CONTROL

3.5.1 Government Sampling and Testing

During construction, stone protection materials will be sampled and tested as often as deemed necessary by the Contracting Officer. This testing will consist of inplace gradations and quality tests on the placed and finished stone. The Contractor shall furnish three laborers as required to assist in the sampling and testing, the necessary equipment and operators for performance of the sampling and testing, and shall be responsible for the satisfactory replacement of stone in the sampled area, all at no additional cost to the Government.

3.5.2 Riprap Gradation Test and Depth Checks

The inplace gradations and depth checks will be determined using the following procedure:

(1) Selection of a full thickness sample at least 8 feet square from the placed and finished stone.

(2) Determination of the weight of the entire sample and average depth of the area from which the sample was removed.

(3) Determination of the weight of each individual piece of stone weighing over the specified 8 percent size.

(4) Determination of the collective weight of all individual stones weighing less than the specified 8 percent weight.

Only those tests which meet all the specified requirements will be counted. If any test indicates the materials or workmanship does not conform to the specifications, the material shall be removed and replaced with stone

meeting these specifications; the frequency of testing will be increased until compliance has been obtained.

3.5.3 Bedding Gradation Tests and Depth Checks

The inplace gradations and depth checks will be determined prior to placement of riprap. Gradation of bedding material shall be determined using the procedure in ASTM C 136. If any tests indicate the materials or workmanship does not conform to the specifications, the material shall be removed and replaced with stone meeting the specifications; the frequency of testing will be increased until compliance has been obtained.

3.5.4 Testing Frequency

3.5.4.1 Riprap and Bedding

One test for the first 10,000 square feet of stone placed. One test for the every additional 10,000 tons or portion thereof of stone placement.

-- End of Section --